

# Common Methods of Contraception Used at Monkey Bay Community Hospital in Mangochi District, Malawi

David S. Chung<sup>1,2</sup>, Peter S. Park<sup>2,3</sup>, Sohyun Jeon<sup>2</sup>, Sue Min Shin<sup>2</sup>, Ji Woo Han<sup>2</sup>, Chaieun Lee<sup>2</sup>, Andrew Mun<sup>2</sup>, William Mun<sup>2</sup>, Yun Jae Shin<sup>2</sup>, Lorie Kim<sup>2</sup>, Jairos B. Makangano<sup>4</sup>, Fatsani Manase<sup>4\*</sup>, Thomas Nyirenda<sup>2,4\*</sup>

<sup>1</sup>School of Medicine, University of Virginia, Charlottesville, VA, USA

<sup>2</sup>Youth with Talents, Fairfax, VA, USA

<sup>3</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

<sup>4</sup>Clinical Research Education and Management Service, Lilongwe, Malawi

Email: \*paulschung08@gmail.com

**How to cite this paper:** Chung, D.S., Park, P.S., Jeon, S., Shin, S.M., Han, J.W., Lee, C., Mun, A., Mun, W., Shin, Y.J., Kim, L., Makangano, J.B., Manase, F. and Nyirenda, T. (2021) Common Methods of Contraception Used at Monkey Bay Community Hospital in Mangochi District, Malawi. *Advances in Infectious Diseases*, 11, 13-20.

<https://doi.org/10.4236/aid.2021.111003>

**Received:** September 29, 2020

**Accepted:** February 1, 2021

**Published:** February 4, 2021

Copyright © 2021 by author(s) and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International

License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

## Abstract

To determine commonly used methods of contraception at Monkey Bay Community hospital, to compare different methods of contraception used by people of various age groups, parity, Human Immunodeficiency Virus (HIV) and Marital status, a clinical audit of family planning methods used by clients at Monkey Community hospital from January 2018 to June 2019 was done. Data was collected from the registers. A total number of 1734 clients reported at family planning clinic of Monkey-Bay Community Hospital between January 2018 and June 2019. All the clients were females. Most of these clients were in the age range of 15 - 34 years (83.33%). There were 1,486 (87%) HIV negative clients, 208 (12%) HIV positive clients and 24 (1%) had unknown HIV status. Most clients had a parity of 1 - 2 (905, 52.71%) followed by 3 - 4 (540, 31.45%) and 5 or plus (272, 15.84%). There were more married people (1641, 97.23%) than unmarried ones (46, 2.73%). There was only one person who was divorced (1, 0.05%). Education status was not recorded. The five commonly used contraceptive methods were: Intramuscular (IM) injectable Depo-IM (1366, 79.51%), Jadelle (122, 7.10%), Subcutaneous (SC) injectable Depo-SC (65, 3.78%), Combined Oral Contraceptives (COC) (60, 3.49%) and Implanon (40, 2.33%). None of the clients was used female condoms as a method of contraception. The contraceptive use was common between the age group of 15 - 24 (707, 44.92%) and 25 - 34 (709, 45%). Depo-IM was most used in age group 25 - 34 (44.5%) while Jadelle was mostly used by 15 - 24 years old (48%). 1181 clients (79.5%) of HIV negative clients used Depo-IM as the contraceptive method while 164 clients (78.8%) of HIV positive clients

used Depo IM as a method of contraception. More HIV negative clients used Jadelle and COC as compared to HIV positive clients. The choice of a particular method of contraception was influenced by many factors. Parity, marital status, age as well as HIV status did have some association with the preferred method of contraception. Our study shows that there could be varied reason for women chose types of contraception in this part of Malawi. Interventions that aim to increase access to family planning methods, should consider exploring the reasons why clients use some methods more than the other for better planning of these services. Absence of male clients accessing vasectomy at the hospital raises concern and more studies will be needed to determine the reason why men do not come forward for family planning services at Monkey Community Hospital.

### **Keywords**

Contraception, Parity, HIV, Mangochi, Malawi

---

## **1. Introduction**

In almost all regions of the world, contraceptives are used by the majority of women in the reproductive age range (15 - 49) years who are married or in union, such that worldwide in 2017, 63% of these women were using some form of contraception. Modern contraceptive methods account for most of the contraceptives used worldwide [1]. Globally in 2017, 58% of married or in a union women (15 - 49) years, were using a modern method of contraception. In Malawi, according to Malawi Demographic and Health Survey (DHS) of 2016, modern contraceptive use by currently married women has increased steadily during the last 25 years, increasing from 7% in 1992 to 58% in 2015-2016 [2]. Seventy-six percent of the demand for family planning among currently married women is satisfied while 53% of the demand for family planning among unmarried sexually active women is satisfied [3]. Despite the tremendous progress in the use of modern contraception, Malawi follows the global trend by still registering high unmet needs of contraceptive methods especially among unmarried individuals.

Use of modern contraceptive methods in Malawi varies among regions, age, gender, parity as well as marital status of women. According to DHS of 2016, the contraceptive use in the country ranges from 54% among currently married women in the Northern and Southern regions to 63% of currently married women in its Central region. In Mangochi, a district in southern part of Malawi, the percentage of women aged 15 - 49 married or in union who are using (or whose partner is using) a (modern or traditional) contraceptive method was estimated to be 44.2% in 2014.

The DHS of 2016 also shows that despite the fact that knowledge of contraceptive methods is almost universal in Malawi, with 98% of women and nearly 100% of men age 15 - 49 knowing at least one method of contraception, teenage

pregnancies are on the rise. This is national statistic which is also true for Mangochi district in the country. Family planning is key for reducing unintended pregnancies and their health consequences and is also associated with improvements in economic outcomes [4]. To provide a better service and achieve these good outcomes, it is important to understand the use of modern contraceptive methods that are commonly used by people in a specific area targeted with these services. Data on client choices and their varying characteristics, particularly for rural settings are rarely available. Monkey-Bay area is a rural setting in Malawi where such data is not routinely collected and analyzed for services management.

We conducted this study to determine the use of different methods of contraception methods in Monkey Bay by parity, gender, HIV as well as marital status.

## 2. Materials and Methods

### Setting

The study was done at Monkey-Bay Community Hospital in Mangochi District, Malawi. Monkey bay provides modern methods of contraception as part of its prenatal and postnatal health care services.

### Design

#### *Clinical Audit*

Data on contraception use by the following variables: parity, gender, HIV as well as marital status was extracted from Family Planning Registers at Monkey Bay Community Hospital. Clients aged 15 - 49, attending the health service from January 1, 2018 to June 1, 2019 were included in the study. The data was captured on a clinic audit form. Sample size constituted all client entries in the Family Planning Registers covering the chosen 1 year and 6 months period. Data of women who were pregnant and those who were not in the child-bearing age were not included in the study.

### Data management tools

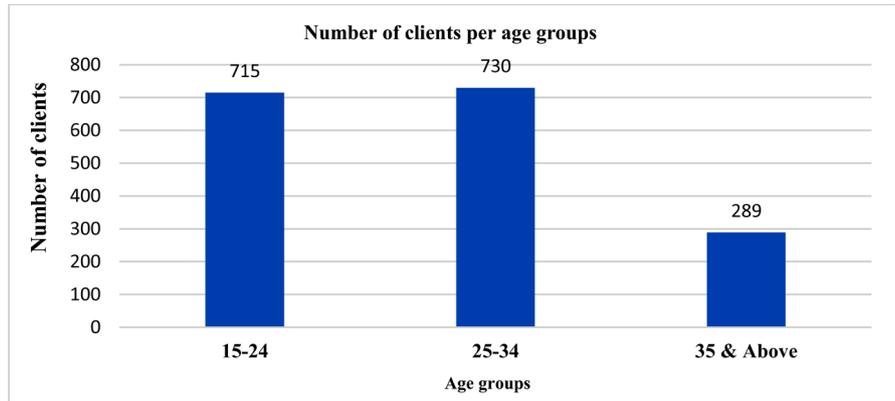
Data was entered and analyzed using Microsoft excel 2016. The resource was encrypted with password and names of patients were not captured but were instead coded into study identifier numbers to ensure privacy and confidentiality.

## 3. Results

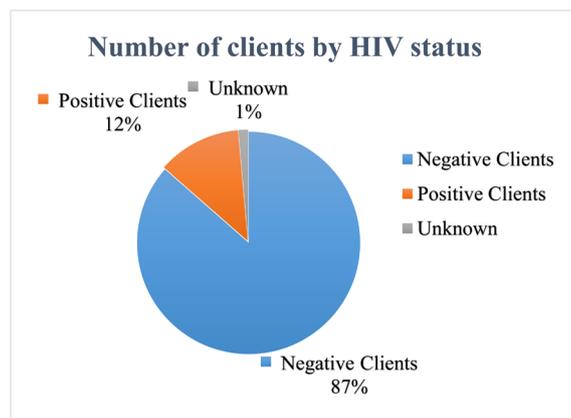
### Clients characteristics

A total number of 1734 clients reported at family planning clinic of Monkey-Bay Community Hospital between January 2018 and June 2019. All the clients were females. Most of these clients were in the age range of 15 - 34 years (83.33%), **Figure 1**. There were 1486 (87%) HIV negative clients, 208 (12%) HIV positive clients and 24 (1%) had unknown HIV status, **Figure 2**.

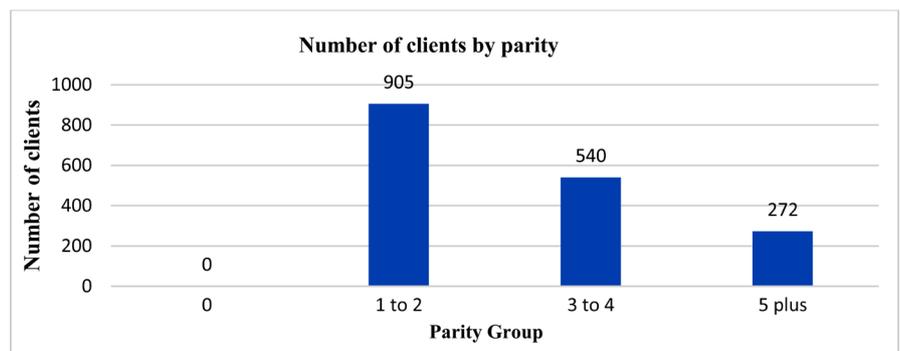
Most clients had a parity of 1 - 2 (905, 52.71%) followed by 3 - 4 (540, 31.45%) and 5 or plus (272, 15.84%) **Figure 3**. There were more married people (1641, 97.23%) than unmarried people (46, 2.73%). There was only one person who was divorced (1, 0.05%), **Figure 4**. Education status was not recorded.



**Figure 1.** Number of clients attending Family Planning clinic at Monkey bay community hospital by age group.



**Figure 2.** Number of clients attending Family Planning clinic at Monkey bay community hospital by HIV status.



**Figure 3.** Number of clients attending Family Planning clinic at Monkey bay community hospital by parity.

### Findings of contraceptive uptake

There were 16 contraceptive methods in total; Jadelle, Depo Provera intramuscular (Depo-IM), female and male condoms, Depo Provera subcutaneous (Depo-SC), Intra-uterine device (IUD), Implanon, Levo plant, Immediate postpartum, Caesarian section (C/Section), Vasectomy, Emergency contraception, Progesterone Only Pills (POP), Combined Oral Contraception (COC), In-

terval and Back-up method. The five commonly used contraceptive methods were: Depo-IM (1366, 79.51%), Jadelle (122, 7.10%), Depo-SC (65, 3.78%), COC (60, 3.49%) and Implanon (40, 2.33%) in that order, **Figure 5**. None of the clients used female condoms as a method of contraception.

**Comparing contraceptive uptake by age group**

The contraceptive use was common between the age group of 15 - 24 (707, 44.92%) and 25 - 34 (709, 45%). Depo-IM was most used in age group 25 - 34 (44.5%) while Jadelle was most used by women aged 15 - 24 (48%), **Figure 6**.

**Comparison of methods of contraception by parity**

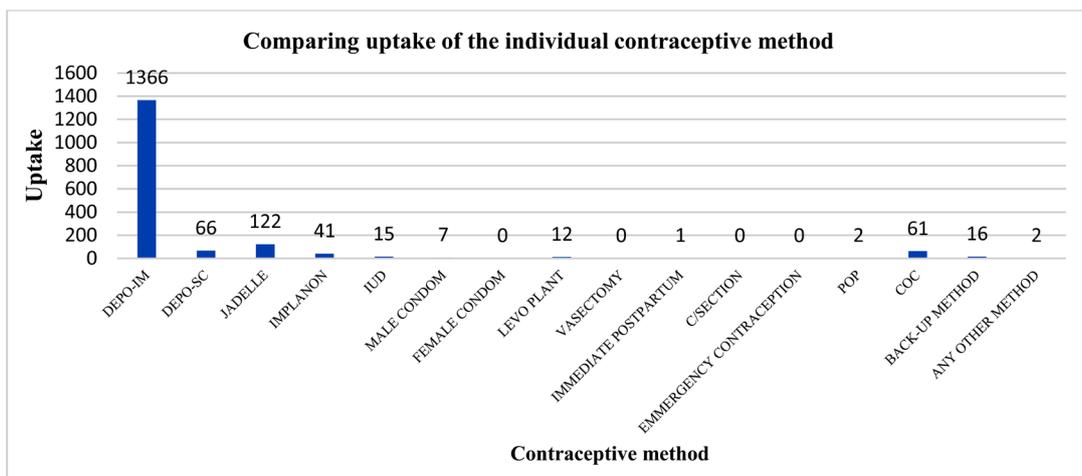
In all the three parity groups, (1 - 2, 3 - 4 & 5 plus years) Depo-IM was the most used methods. Combined oral contraceptive pills were also used more in clients with less than two children but still in lower numbers than Depo-IM (**Figure 7**).

**Comparison of contraceptive methods by HIV status**

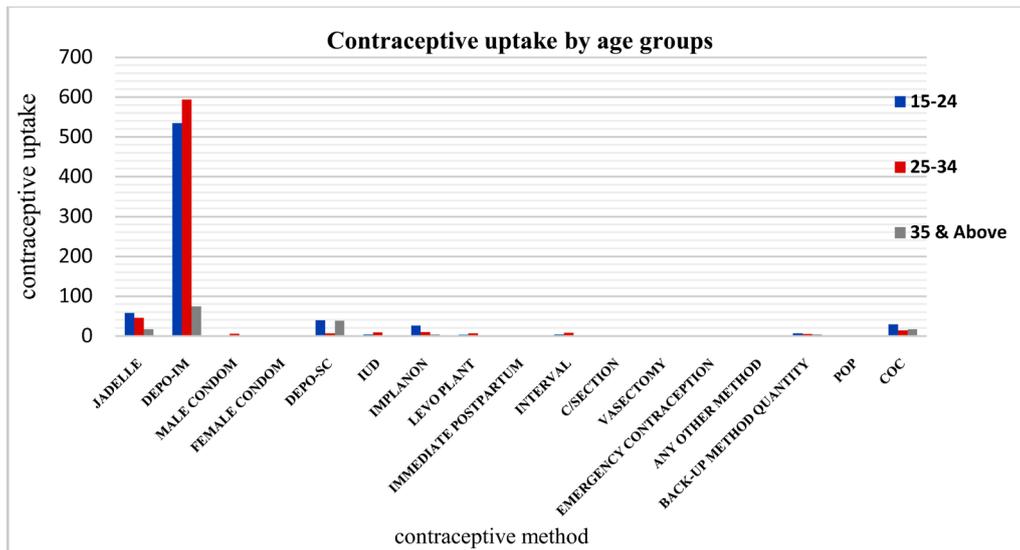
1181 clients (79.5%) of HIV negative clients used Depo-IM as the contraceptive method while 164 clients (78.8%) of HIV positive clients used Depo IM as a method of contraception. More HIV negative clients used Jadelle and combined contraceptive pills as compared to HIV positive clients (**Figure 8**).



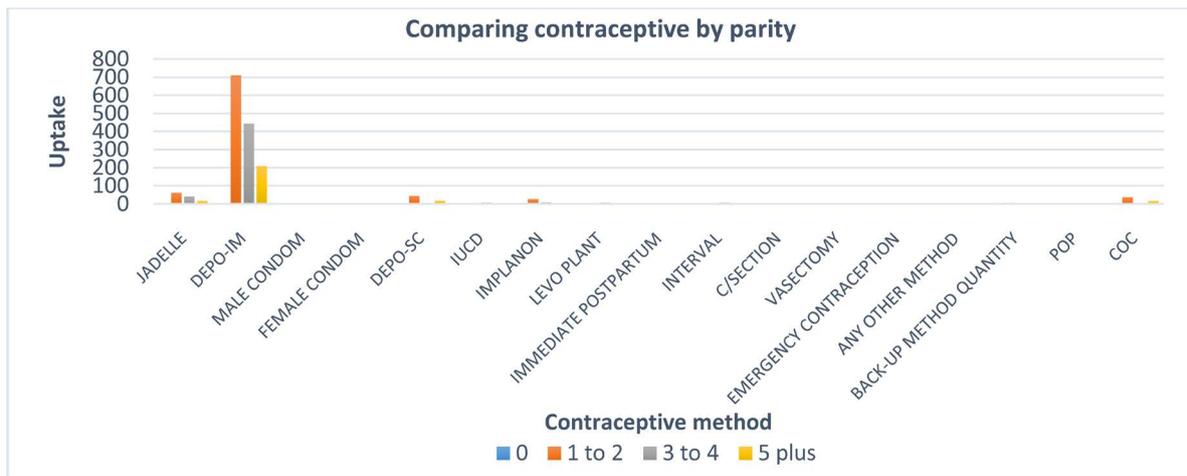
**Figure 4.** Number of clients attending Family Planning clinic at Monkey bay community hospital by marital sex.



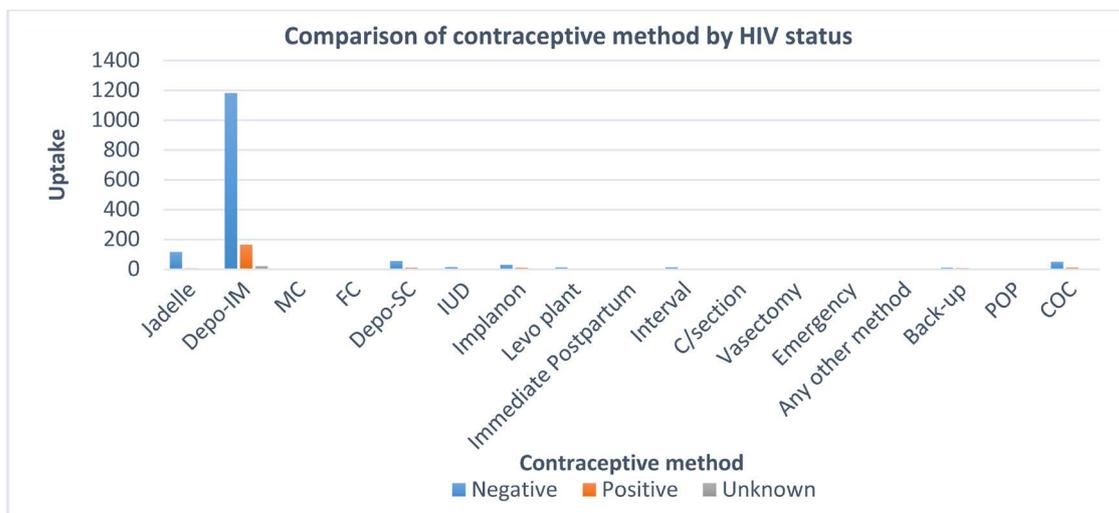
**Figure 5.** Comparison of uptake of different contraceptive methods at Monkey Bay Hospital.



**Figure 6.** Contraceptive uptake by age groups in Monkey Bay, Malawi.



**Figure 7.** Comparing contraceptive use by parity in Monkey Bay, Malawi.



**Figure 8.** Comparison of contraceptive method by HIV status.

## 4. Discussion

In our study audit we found that most clients at Monkey Bay Community hospital in Malawi commonly used any one of the following methods of contraception; Depo (IM or SC), COC and Implanon. In all the age groups, injectable contraceptive seemed to be the most commonly used modern method. Other studies done elsewhere have also reported injectables as most commonly used modern method in those countries among all other available methods (6). The Malawi Demographic and Health Survey (DHS) in 2016 found that among currently married women, the most commonly used methods were injectables (30%) and implants (12%). This agrees with the finding of more rural women using injectable, in our study. Our study also shows that use of modern method of contraception, including injectables, was more common in women with two or less children, as compared to those who had more than two children. The higher contraceptive uptake in this category may be due to different factors, like education status, willingness of the person to limit the number of children among them. The DHS 2016 reports that Contraceptive use among married women rises with an increase number of living children. In its report 4% of Malawian women with no living child use modern contraception compared with 58% of women with 1 - 2 living children, and 66% of women with five or more children. Our study slightly differs from this finding as contraceptive use was low in people with more than 3 children. This calls for service providers in Monkey Bay to understand the reason for such differences to inform the planning of their service to their target population. In general, women do not begin using contraception until after they have had at least one child [5].

The study also reveals that 44.9% of the women in the age range of 15 - 24 used injectables (Depo IM), as a method of contraception. The reasons for this popular choice are not known and require a separate study. Our study could not determine possible causes of this preference such as use of contraceptives without partner's consent, peer pressure or health worker bias during counselling. The important results were that Jadelle and oral contraceptive pills were mostly used by HIV negative client than in HIV positive clients. Our study could not show the significance of this finding and could be attributed to mere fact that there were more HIV negative clients than HIV positive ones.

Our study also showed that although majority of clients were women, male services such as vasectomy were also available but not used. More studies will be needed to determine the reason why men do not come forward for vasectomies at Monkey Community Hospital.

## 5. Conclusion

In conclusion, the choice of contraception by rural clients is served by a community hospital differed by age, sex, parity and HIV status. Therefore, services planners and providers of family planning programs need to be aware of such factors for better planning and delivery of health care.

## 6. Limitations of the Study

There was limited time to conduct the study. The study was done in one-week period due to limited time of stay at the site of the study. Documentation in the registers from where the data was taken was not fully complete. For example, there was missing data from some sections of the registers, some entries were completely illegible and data on some key variables such as education and socioeconomic status of the clients was not routinely recorded.

## Acknowledgements

The authors acknowledge the Youth with Talents for sponsoring this medical project (YWT-2019-06PH), the hospital in charge and all other health workers of Monkey bay community hospital who made this work to happen. Funding for the research was provided by Clinical Research Education and Management Services (CREAMS)

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

## References

- [1] United Nations, Department of Economic and Social Affairs, Population Division (2017) World Family Planning 2017-Highlights (ST/ESA/SER.A/414). [https://www.un.org/en/development/desa/population/publications/pdf/family/WFP\\_2017\\_Highlights.pdf](https://www.un.org/en/development/desa/population/publications/pdf/family/WFP_2017_Highlights.pdf)
- [2] National Statistical Office, NSO/Malawi and ICF (2017) Malawi Demographic and Health Survey 2015-16. NSO and ICF, Zomba, Malawi. <http://dhsprogram.com/pubs/pdf/FR319/FR319.pdf>
- [3] (2017) Government of the Republic of Malawi Health Sector Strategic Plan II 2017-2022, Towards Universal Health Coverage. In: Ministry of Health Malawi Government, Ed., 2nd Edition, National Statistics Office (NSO), Zomba, Malawi.
- [4] Ewerling, F., Victora, C.G., Raj, A., *et al.* (2018) Demand for Family Planning Satisfied with Modern Methods among Sexually Active Women in Low- and Middle-Income Countries: Who Is Lagging behind? *Reprod Health*, **15**, 42. <https://doi.org/10.1186/s12978-018-0483-x>
- [5] National Statistical Office, NSO/Malawi and ICF Macro (2011) Malawi Demographic and Health Survey 2010. NSO/Malawi and ICF Macro, Zomba, Malawi.